

# How Organic Is Your Organic Milk?

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February 15, 2024

## STORY AT-A-GLANCE

- › Some organic milk brands contain omega-3-rich oil made from corn syrup-fed algae; while the microalgae are not genetically modified, they are fed corn syrup made from genetically engineered corn
- › In 2012, USDA realized it had incorrectly interpreted the law when allowing the algae-based DHA oil in organics. A temporary rule allowed its continued use to avoid disrupting the market, but a final rule was never issued
- › Some organic dairies are concentrated animal feeding operations in disguise, selling milk for higher prices while not actually giving you anything that is substantially different from nonorganic milk

***Editor's Note: This article is a reprint. It was originally published June 20, 2017.***

So, you're familiar with the problems associated with conventional pasteurized milk and you've started buying (and paying more for) organic milk instead. If you think you're doing your health a great favor, you may be shocked to find out some organic milk brands contain omega-3-rich oil made from corn syrup-fed algae. As noted by The Washington Post:<sup>1</sup>

*"DHA Omega-3 Supports Brain Health,' according to the Horizon cartons sold in supermarkets around the United States. What the Horizon milk carton doesn't advertise is that some of its contents were brewed in closed stainless steel vats of Schizochytrium.*

*This omission avoids any ick reaction from shoppers, but consumer advocates say it also dodges a key question: Is milk supplemented with an oil brewed in a factory really 'organic?'*

*'We do not think that [the oil] belongs in organic foods,' said Charlotte Vallaey, a senior policy analyst, at Consumer Reports. 'When an organic milk carton says it has higher levels of beneficial nutrients, like omega-3 fats, consumers want that to be the result of good farming practices ... not from additives made in a factory.'"*

## **Low-Fat Milk Does Not Belong in a Healthy Diet**

Even more ironic, in an effort to appease two divergent health notions – the low-fat myth and omega-3 for brain health ideology – some "organic" milk manufacturers will remove the healthy, naturally occurring fats and replace them with algae-generated DHA oil, creating a high-DHA fat, low-dairy fat product.<sup>2</sup> This same DHA has been previously removed from infant formulas or baby foods certified as organic, due to health concerns.

While I do not recommend whole organic milk for the fact that it's been pasteurized, low-fat versions are even worse since you're now forgoing some of the best parts of the milk – the milk fat. Research has actually linked low-fat dairy consumption to an increased risk of Parkinson's disease.<sup>3</sup>

Compared to people who drank less than one serving of low-fat dairy per day, those who drank three servings or more increased their chances of developing Parkinson's by more than one-third. Worst of all is reduced fat chocolate milk – with or without added DHA and vitamins – as the second ingredient is added sugar!<sup>4</sup>

If you want to drink milk, I recommend getting raw grass fed milk – milk from cows raised on pasture under organic conditions that is not pasteurized. The good news is, the American Grassfed Association (AGA) introduced much-needed [grass fed standards](#)

**and certification**<sup>5</sup> for American-grown grass fed dairy, which allows for greater transparency and conformity.

Prior to this certification, dairy could be sold as "grass fed" whether the cows ate solely grass or received silage, hay or even grains during certain times. Considering how important a cow's diet is when it comes to the quality of its milk, especially when we're talking about raw milk, I would strongly advise you to ensure your raw dairy is AGA certified as grass fed once the certification becomes officially available.

However, please understand that if you have not trained your body to burn fat as your primary fuel, you will want to avoid or severely limit your intake of even this healthy milk as it is relatively high in sugar and will contribute to your inability to burn fat. Once you make the shift to burning fat as your primary fuel, drinking raw milk in moderation should be fine.

## **What Is Organic?**

Organic foods have been shown to improve immune system status<sup>6</sup> and sleep,<sup>7</sup> lower your risk for obesity<sup>8</sup> and cancer,<sup>9</sup> and often have higher antioxidant and mineral contents than conventionally grown foods.<sup>10</sup> There are several different organic labels out there, but only one relates directly to foods: the U.S. Department of Agriculture (USDA) Organic seal.

To qualify as USDA organic,<sup>11</sup> a product must be grown and processed using organic farming methods that recycle resources and promote biodiversity. Crops must be grown without synthetic pesticides, bioengineered genes, petroleum-based or sewage sludge-based fertilizers. Organic livestock must have access to the outdoors and cannot be given antibiotics or growth hormones.

- Products labeled "100% organic" must contain only organically produced materials
- Products labeled simply "organic" must contain at least 95% organic ingredients
- The label "made with organic ingredients" can contain anywhere between 70% and 95% organic ingredients

Organic products cannot be irradiated, are not allowed to contain preservatives or flavor enhancing chemicals, nor can they contain traces of heavy metals or other contaminants in excess of tolerances set by the U.S. Food and Drug Administration (FDA).<sup>12</sup> Additionally, the pesticide residue level cannot be higher than 5% of the maximum pesticide tolerance set by the U.S. Environmental Protection Agency (EPA).<sup>13</sup>

## **Is Corn Syrup-Fed, Algae-Based DHA Really Organic?**

Despite all of that, regulatory loopholes and good old-fashioned human error sometimes allow less than organic products to bear the USDA organic label, as appears to be the case with DHA-fortified organic milk. As noted in the featured article:<sup>14</sup>

*"A closer look at how the oil winds up in organic milk offers insight into how the [USDA] determines what foods may be sold with its coveted 'USDA Organic' seal ... At least in part, it's a lobbying tug-of-war: On one side, many companies, seeking to maximize sales, push the USDA for an expansive definition of 'organic.' On the other, consumer groups advocate for a narrower, 'purer,' definition.*

*In deciding to allow the use of the oil and similar additives, USDA officials, at least initially, misread federal regulations. In 2012, five years after the algal oil was introduced into milk, it quietly acknowledged that some federal regulations had been 'incorrectly interpreted.' The USDA then maintained the status quo – allowing the use of algal oil, among other things – in order not to 'disrupt' the market."*

## **10 Years of Violation Is Long Enough**

The manufacturer of the DHA oil, a company called DSM,<sup>15</sup> defends its product saying it's vegetarian, sustainable and "does not contribute to overfishing."<sup>16</sup> But while DSM believes its life's DHA™ oil is "consistent with the important values of the organic industry," the additive does appear to violate organic regulations.

In 2012, several months after the USDA had realized its interpretation mistake, an interim rule was issued that temporarily allowed algal oil to continue being used. At the time, the USDA stated that "This action enables the industry to continue with the status quo until additional public comments are received and a final rule is published."

Five years have gone by and no final rule was ever issued, which means organic dairy brands have now been selling certified USDA organic DHA-fortified milk in violation of organic standards for an entire decade – five years before the mistake was caught and five years after. Granted, the wheels of the regulatory wagon can be slow in turning, but enough is enough.

Could it be that the USDA has silently swept the issue under the rug, hoping it will simply be forgotten? As noted by policy analyst Vallaeys:<sup>17</sup>

*"Algal oil is one of several nutrient additives that have not gone through this proper review and approval process. It's very disappointing that we have yet to see proper enforcement action from the National Organic Program on this issue."*

It's worth noting that while Martek, a harvester of DHA algae that has since been acquired by DSM, clarified that the microalgae are not genetically modified (GM)<sup>18</sup> – a claim made by some – the algae IS fed corn syrup, and Martek did concede that "some" of its corn is GM, "given the prevalence of GM corn in the U.S. market."

This is a loophole that allows questionable additives and ingredients into organic products. Just like a cow cannot be raised on GM feed and be considered organic, algae fed GM corn syrup should not be deemed organic either.

## **Some Organic Dairies Are CAFOs in Disguise**

Aside from the DHA issue, there are other reasons to be wary of commercial organic milk. True organic grass fed milk has been repeatedly shown to be higher in many nutrients, including vitamin E, beta-carotene and beneficial conjugated linoleic acid, but some organic dairies are nothing more than **concentrated animal feeding operations**

(CAFOs) in disguise, selling milk for higher prices while not actually giving you anything that is substantially different from nonorganic milk.

For example, Aurora Organic Dairy in Colorado has 15,000 cows – about 100 times larger than your typical organic herd – and on any given day, 90% of them are kept in feedlots rather than being allowed to roam on pasture. Theoretically, choosing organic milk makes sense, but this holds true only if the farmers are allowing the cows to graze freely on pasture.

A May 1 article in The Washington Post<sup>19</sup> revealed Aurora was stretching, if not breaking, the limits of the organic grazing rules, noting:

*"... [D]uring visits by The Washington Post to Aurora's High Plains complex across eight days last year, signs of grazing were sparse, at best. Aurora said its animals were out on pasture day and night, but during most Post visits the number of cows seen on pasture numbered only in the hundreds.*

*At no point was any more than 10% of the herd out. A high-resolution satellite photo taken in mid-July by DigitalGlobe, a space imagery vendor, shows a typical situation – only a few hundred on pasture."*

The Post even had samples of Aurora's organic milk tested for "a key indicator of grass-feeding" (its fatty acid profile), which revealed the milk matched conventional, not organic milk. Adding to the problem, farmers are allowed to hire their own inspectors to be certified USDA Organic.

In Aurora's case, the Post investigation revealed the inspectors had visited the farm outside of the grazing season, which means they had no way of knowing whether the dairy's grazing habits met the organic requirement. In 2007, the USDA even sanctioned Aurora Organic Dairy for willfully violating organic standards, but the farm was allowed to continue operating after a settlement was reached.

## **Legal Complaint Filed Against Fraudulent Organics**

As a result of the Post investigation, the Cornucopia Institute filed legal complaints against Aurora Dairy and Colorado Department of Agriculture, their organic certifier. They've also asked for the removal of the USDA's lead organic regulator, Miles McEvoy. Cornucopia's co-director Mark Kastel explains:<sup>20</sup>

*"The rigorous investigative work by Peter Whoriskey at The Washington Post clearly illustrates a pattern of long-term corruption by both Aurora Dairy and the USDA's National Organic Program. Our organic regulators have turned a blind eye as giant industrial operations place ethical family-scale dairy farmers at a distinct competitive disadvantage ...*

*These gross violations of the law were well-documented in a series of complaints we filed against Aurora operations in Texas, and other 'organic' CAFOs in the U.S., as well as their certifiers that have languished at the USDA for over a year and a half without enforcement action."*

In addition to fooling consumers, CAFO-style "organic" farms are also pushing real organic farmers out of business. You might not know it, but we actually have a milk surplus at the moment. Thanks to the unnatural efficiency of swiftly growing dairy CAFOs, milk supply has outpaced demand. This is true of organic milk as well.

John Boere, a California dairy farmer, used to be an organic farmer but was unable to find a market for his milk, forcing him to switch back to conventional farming at a steep loss. He told Cornucopia:<sup>21</sup>

*"The surplus of milk is so bad here in California that some organic handlers are being forced to divert organic milk onto the conventional market, at a substantial loss. This contributes to the crumbling farm-gate pricing, and for some, like me, being forced out of organic altogether ...*

*If all organic dairies were forced to get 30% of their dry matter intake (feed) from pasture, as the law requires, there would be a shortage of organic milk, not a surplus!"*

## **Arla Defends 'Live Unprocessed' Food Campaign**

In related news, Arla Foods is being sued by a manufacturer of recombinant bovine growth hormone (rBGH, also known as rBST).<sup>22</sup> The company drew the ire of rBST maker Eli Lilly after it produced a "Live Unprocessed" food campaign in which rBST is depicted as a cartoon monster. The ad campaign also targets the food additive xanthan, depicted as a green alien with six tentacles and three eyes.

Eli Lilly says the ads – which present rBST as something monstrously unnatural – are "built upon a fundamental deception" and that "rBST is not dangerous and is not something consumers should fear." Arla is being sued for breaching unfair competition laws and violating the 1946 Lanham Act, the federal trademark statute that prohibits trademark infringement, trademark dilution and false advertising.

Arla has countered with a motion to dismiss the complaint, saying "There are no allegations sufficient to claim that Arla's actions proximately caused the harm about which Plaintiff's complain."

Arla also noted that in *International Dairy Foods Association vs. Boggs* (2010), it was found that "milk from cows treated with rBST contained higher levels of compounds, including pus, that accelerated the spoiling of the milk, increased fat content and decreased levels of proteins; and elevated levels of insulin-like growth factor 1, a hormone linked to several types of cancer."

## **Where to Find Raw, Grass Fed Milk, Meats and Other Organic Foods**

If you're going to drink milk, consider switching to raw, grass fed milk if you can get it. [Raw-Milk-Facts.com](http://Raw-Milk-Facts.com) and [RealMilk.com](http://RealMilk.com) can tell you what the status is for legality in your state, and provide a listing of raw dairy farms in your area. The Farm to Consumer Legal Defense Fund<sup>23</sup> also provides a state-by-state review of raw milk laws.<sup>24</sup> In California, [Raw Farm](http://RawFarm.com), formerly Organic Pastures, is licensed to sell raw dairy products.



Also keep an eye out for the [AGA grass fed certification](#). In the meantime, their website allows you to search for AGA-approved producers certified according to strict standards that include being raised on a diet of 100% forage; raised on pasture and never confined to a feedlot; never treated with antibiotics or hormones; and born and raised on American family farms.

The [Grassfed Exchange](#) also has a listing of producers selling organic and grass fed meats across the U.S., and the [Weston A. Price Foundation](#) has local chapters in most states. Many of them are connected with buying clubs in which you can easily purchase organic foods, including grass fed raw dairy products like milk and butter.

Another excellent resource is the [Cornucopia Institute](#), which maintains web-based tools rating certified organic brands of eggs, dairy products and other commodities, based on their ethical sourcing and authentic farming practices separating CAFO "organic" production from authentic organic practices.

## Sources and References

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- <sup>1, 14, 17</sup> [Washington Post June 5, 2017](#)
- <sup>2</sup> [Horizon.com \(Archived\)](#)
- <sup>3</sup> [Medical News Today June 8, 2017](#)
- <sup>4</sup> [Horizon.com Lowfat Chocolate Milk \(Archived\)](#)
- <sup>5</sup> [Americangrassfed.org](#)
- <sup>6</sup> [Western Washington Medical Group. Benefits of Organic Foods \(Archived\)](#)
- <sup>7</sup> [Intrepid Mental Wellness. Eating for Sleep: The Anti-Insomnia Diet](#)
- <sup>8</sup> [Healthcare \(Basel\). 2022 Feb; 10\(2\): 231](#)
- <sup>9</sup> [JAMA. Association of Frequency of Organic Food Consumption With Cancer Risk. October 22, 2018](#)
- <sup>10</sup> [Mayo Clinic. Organic Foods: Are They Safer? More Nutritious? April 22, 2022](#)
- <sup>11</sup> [US Department of Agriculture, The National List of Allowed and Prohibited Substances](#)
- <sup>12</sup> [US Food and Drug Administration, August 2000, Action Levels for Poisonous or Deleterious Substances in Human Food and Animal Feed](#)
- <sup>13</sup> [Environmental Protection Agency, Pesticide Tolerances](#)
- <sup>15</sup> [DSM.com](#)
- <sup>16, 18</sup> [Real Natural, DHA Algae Not GMO](#)
- <sup>19</sup> [Washington Post May 1, 2017](#)
- <sup>20, 21</sup> [The Cornucopia Institute May 2, 2017](#)
- <sup>22</sup> [Food Navigator June 6, 2017](#)

- <sup>23</sup> The Farm to Consumer Legal Defense Fund
- <sup>24</sup> The Farm to Consumer Legal Defense Fund, State by State Review of Raw Milk Laws